ANALYSIS

MEANINGLESSNESS AND CONVENTIONAL USE

By Morris Lazerowitz

IN his paper on " Philosophical Perplexity " Mr. John
Wisdom claims to hold a view concerning the nature of
philosophical statements which he expresses by saying that
" Philosophical statements are really verbal."[1]   Somewhat later
in his paper, however, he professes a peculiar willingness to
contradict himself : " I have said that philosophical questions
and theories are really verbal.   But if you like we will not say
this or we will also say the contradictory."[2]   This sort of em-
bracing Hegelian geniality may have a " pacifying "[3] influence,
although its intelligibility remains open to doubt.   I am not at
all certain, however, whether Mr. Wisdom is *really* willing to
contradict his initial thesis that "philosophical statements are
really verbal."   For the reasons he gives for affirming its nega-
tive[4] are such as to imply, not its negative, but only the proposi-
tion that philosophical statements do not *seem* to be verbal, which
of course is consistent with his thesis.

My object in this paper is not, however, to discuss his general
view concerning the nature of philosophical statements, a view
which is of course also held by a great many other philosophers.

[1] *Proc. Arist. Soc.*, Vol. XXXVII, 1936–7, p. 71.
[2] Ibid., p. 72.
[3] Ibid., footnote p. 82.
[4] Ibid., p. 72–3 ; see also p. 76 where he observes that one of the *misleading* features of
nearly all philosophical statements is their " non-verbal air."

Rather, my object is to discuss several points relating to the particular form he gives to this view. He sums up *his* view in the following sentence : " A philosophical answer is really a verbal recommendation in response to a request which is really a request with regard to a sentence which lacks a conventional use whether there occur situations which could conventionally be described by it."[5]

According to this a philosophical statement will be a verbal recommendation made with regard to a sentence *s* which lacks a certain property he designates by the words " conventional use " ; where the question to which the statement is an answer will be

(I) " Do there occur situations which could conventionally be described by *s* ? "

It is clear that the sentences formulatable in a given language L (say English) are of two sorts. Either they are such as to be devoid of literal meaning in L, or else are such as to possess it. Thus every sentence constructible in L will belong to either one of the following two mutually exclusive sub-classes of sentences constructible in L :

(a), the class of literally meaningful sentences ;

(β), the class of literally meaningless sentences.

Now Mr. Wisdom seems to classify sentences according as they have or lack the property which he designates by the expression " conventional use." On his view, then, it is to be supposed that the class of sentences formulatable in L divides into the following mutually exclusive classes :

(a'), the class of sentences having conventional use ;

(β'), the class of sentences lacking conventional use.

He also appears to make a further distinction between sentences which " just lack " conventional use and sentences " in conflict with " conventional use.[5] To illustrate what he means by a sentence just lacking conventional use he cites " I know directly what is going on in Smith's mind " ; and to illustrate what he means by a sentence being in conflict with conventional use, " There are two white pieces and three black so there are six pieces on the board." But aside from giving examples he does nothing to explain this distinction. It may be that he intends a distinction between " descriptive " sentences and non-descriptive ones such, for example, as those which occur in the notations of

[5] Ibid., p. 71.

logic and mathematics ; for he calls the sentence "I know
directly what is going on in Smith's mind" a description[6] and
does not so designate, "There are two white pieces and three
black so there are six pieces on the board." That is, he may
intend to distinguish between analytic sentences, which of course
are non-descriptive,[7] and non-analytic sentences, which if they
had conventional usage would be used as descriptions of empirical
states of affairs. And it would seem that with regard to descrip-
tive sentences which lack the property of having conventional
use he holds that they *just* lack that property, whereas with regard
to non-descriptive sentences he holds that they are in conflict with
conventional use. Accordingly, on his view, a further class
(β'') of sentences constructible in L will exist, such that the
difference between (β') and (β'') will be that no sentences of
(β'') will be descriptions, whereas all those of (β') will be. Philo-
sophical statements apparently concern sentences of (β')
exclusively. And I imagine that Mr. Wisdom wishes to hold this
because no sentences of (β'') could be said to be *open* to verbal
recommendation, since they are *in conflict with* conventional use ;
whereas those of (β') admit of verbal recommendation, for the
reason that they are *not* in conflict with conventional use but rather
just *lack* it.

From Mr. Wisdom's paper it is not easy to ascertain precisely
what relations hold between the classes (α'), (β'), (α), and (β).
Concerning the example he uses of a sentence lacking conven-
tional use, namely "I know directly what is going on in Smith's
mind," he says that it is nonsensical or meaningless.[8] From this
it would seem he wishes to hold that at least *some* members of
(β') are also members of (β). But later,[9] in distinguishing be-
tween the tasks of the decoder, the translator, and the philosopher,
he writes : "The philosopher does what he wants with the
sentence ['"Monarchy" means the same as set of persons ruled
by the same king'"] only if his hearer uses, i.e. understands, i.e.
knows the meaning of *both* ' monarchy ' and ' set of persons ruled
by the same king.' This condition makes the case of the philo-
sopher curious ; for it states what he can do with the sentence
only if his hearer already knows what he is telling him." This

[6] Ibid., p. 71.
[7] L. Wittgenstein, *Tractatus Logico-Philosophicus*, 4.463.
[8] *Proc. Arist. Soc.*, Vol. XXXVII, p. 71.
[9] Ibid., p. 74.

statement seems quite unambiguous. Obviously the philosopher's hearer will know " what he is telling him " only if he *understands* the sentence *s* that the philosopher is using, which of course entails that *s* has literal meaning. And since the philosopher can do " what he wants with the sentence " *only* if his hearer already understands it, it would seem that Mr. Wisdom now supposes *all* the sentences with which the philosopher is concerned, namely the sentences of (β'), are members of (α), that is, are literally significant. It would appear then that he wants to hold *both* that some sentences of (β') are not members of (α) *and* that all of them are members of (α).

In spite of Mr. Wisdom's willingness to contradict himself I nevertheless do not see how he can hold this without committing himself to nonsense. But perhaps his later statement, concerning the philosopher's task as distinguished from that of the decoder and translator, is merely a " slip " on his part. It seems to me that this is the case and furthermore that what he really wants to maintain is not only that some but *all* sentences lacking conventional use are devoid of literal meaning, i.e. that (β') is included in (β). For it is hardly to be presumed he would hold that a sentence could both have literal meaning in a given language and lack conventional usage in it, since part of making a " verbal recommendation " consists, it is to be supposed, in *giving meaning* to a sentence. Accordingly I shall assume Mr. Wisdom's view to be to the effect that a philosophical statement is a verbal recommendation in answer to the question, with regard to a particular sentence *s*,

(I), " Do there occur situations which *s* could conventionally be used to describe ? "

where *s* lacks both conventional usage and literal meaning.

At first sight (I) may seem to be a single question ; but a closer inspection shows, I think, that it is not a single question at all but rather consists of two distinct questions. That this is so can perhaps be shown most clearly by successively emphasizing different parts of (I). We may ask " *Do there occur situations* which could conventionally be described by *s* ? ", in which the emphasis directs our attention to the question as to whether in fact there occur situations or states of affairs answering to the description *s*. Or we may ask, " Do there occur situations which *could conventionally be described by s* ? " in which case our attention

is directed to the question whether s, which lacks conventional use, could conventionally be used as a description.   It seems to me thus that (I) is compounded out of the following two distinct questions :

(II), " Can s be conventionally used as a description ? "

(II'), " Do there occur situations answering to s ? "

It is obvious, I think, that (II) and (II') are *different sorts* of questions.   (II), if it is a genuine question, is a linguistic one, such that an answer to it would be given in the form of a " verbal recommendation ".   (II'), on the other hand, is a non-linguistic question, such that in no sense could an answer to it be a " verbal recommendation " with regard to the sentence it concerns.   And I wish to point out that if Mr. Wisdom is to hold that a philosophical statement is a verbal recommendation made with regard to a given sentence lacking conventional use he must also hold a philosophical statement to be an answer *exclusively* to (II).   That is to say, he must hold that (II') is no part of the question to which a philosophical statement is an answer.

It may seem at first that an answer to (II), i.e. a verbal recommendation, is to be based, in part at least, on an antecedent answer to (II').   In other words, it may appear that a verbal recommendation made with regard to a sentence s lacking conventional use would be based, if not wholly then at least partly, on the antecedent answer to the question whether there occur situations answering to s, and thus that (II') is, *in some sense*, part of the question to which a philosophical statement is an answer.   This, however, is impossible.   (II) and (II') are so related that, with regard to the same sentence s, (II) must be given an answer *before* (II') could even be supposed a question.   For (II), in any actual case, concerns a sentence s which lacks conventional use and therefore also *lacks literal meaning :* and if to begin with s has no literal significance, to ask (II'), i.e. " Do there occur situations answering to s ? " would be simply to use a meaningless combination of words in the form of a question.   It would seem plain that if s is nonsensical it will be meaningless to say that we are looking about in the world to see whether situations answering to s do or do not occur ; and obviously therefore it will be meaningless to *ask* " Do there occur situations answering to s ? "   Consequently, since antecedent to making a verbal recommendation with regard to s (II') will be devoid of sense, it will be impos-

sible to suppose that a verbal recommendation in response to
(II) could be based, even partly, on a prior answer to (II').

If, however, an answer to (II) is first given, i.e. if the philosopher
makes the verbal recommendation that *s* can be conventionally
used as a description, and in doing so, it is to be supposed, *gives*
s conventional usage and also therefore literal meaning, it will be
plain that (II'), which then becomes an intelligible question, is no
part of a question to which a philosophical statement could be
supposed an answer. If (II') concerns a descriptive sentence of
(*a*) it will be intelligible to look for situations answering to *s*,
although obviously not to find such situations, or even to find
that there are no such situations, will not have the slightest
tendency to render *s* meaningless : "To understand a proposi-
tion is to know what is the case if it is true. One can therefore
understand it without knowing whether it is true or not."[10]
But no philosopher, including Mr. Wisdom,[11] would suppose
that (II'), when it concerns descriptive sentences of (*a*) is ever a
philosophical question ; that, for example, the question "Do
there occur situations answering to the description ' Johnny has a
stomach-ache ' ? " is ever a philosophical question.

(II) appears to be a linguistic question and may belong to
philosophy ; but (II'), in relation to (II), is either devoid of literal
significance or is an *empirical* question of a kind no one would
suppose a philosopher ever to be concerned with. Mr. Wis-
dom's original question, (I), to which he supposes a philosophical
statement to be an answer, turns out thus to be a composite
question of which a constituent question, namely (II'), is either
nonsensical or unphilosophical. And it seems to me, if Mr.
Wisdom's theory regarding the nature of philosophical state-
ments is to be taken seriously, that (II') must be deleted from (I),
i.e. it must be supposed his real intention is to hold that philo-
sophical statements are verbal recommendations made in answer
to the question (II) alone, namely " Can *s* be given a conventional
use as a description ? ".

But what does Mr. Wisdom mean by saying that a sentence
has or lacks " *conventional use* " ? What are we to understand by
" conventional use " as he uses it in connection with *sentences* ?
Unless we understand this we shall not be able to understand the

[10] L. Wittgenstein, *Tractatus Logico-Philosophicus*, 4.024.
[11] John Wisdom, Op. cit., see p. 78.

question, with regard to a given sentence *s* which lacks the pro-
perty he designates by the phrase " conventional use," whether
s could be conventionally used as a description in L.   And so we
shall also be unable to understand what he means by saying that a
philosophical statement is a *verbal recommendation* in answer to
(II).   It is to be noted that the expression " conventional use " is
not conventionally used in connection with sentences.   In
ordinary discourse it is conventionally used in connection with
words, or at most with phrases.   And as Mr. Wisdom uses it in
the sentence " *s* lacks a conventional use " I am not aware that he
has given '• conventional use " any meaning at all.   But perhaps
he *does* intend this expression to have the meaning it has as used
in connection with words.   Is this possible ?

A language L may in general be described as consisting of a
set of conventions : conventions as to what certain words shall
mean, and further conventions as to how those words shall be
combined into units of discourse (sentences etc.), i.e. conventions
of syntax.   And to say that a word *w* has a conventional use, or is
conventionally used to mean so-and-so, is to say that one of the
conventions of L is that *w* does mean so-and-so, i.e. that *w* means
so-and-so by a convention made with regard to it.   Similarly to
say that a given word w_1 lacks a conventional use, or is not con-
ventionally used to mean anything, is equivalent simply to saying
that none of the conventions of the set of conventions constituting
L is a convention with regard to w_1.   That is, w_1 does not lack
meaning by a special convention but rather as a result of the fact
that no convention has been made regarding it.   Thus, for
example, the word " yellow " means so-and-so in the English
language by one of the conventions constituting the English
language ; and the fact that " ublat " lacks a meaning is a fact to
the effect that in English there exists no convention regarding
" ublat."

In *this* sense of " conventional use " it is plainly not correct to
say that a *sentence* has or lacks conventional use.   It is not correct
to say that a sentence *s* means so-and-so by a special convention of
L, made with regard to *s*, or that it *is* a convention of L that *s*
means so-and-so ; neither is it correct to say that *s* lacks meaning
as a result of the fact that no convention of L is a *special* conven-
tion with regard to *s*.   We do not first construct a sentence and
then proceed to *give* it meaning by making a further convention

(one not already existing in the L-set of conventions) especially with regard to it, or leave it meaningless by failing to do so. The meaning which a sentence has *derives* from conventions made with respect to items *other than itself*, i.e. the words from which it is formed and the rules by use of which they are combined. Consequently, sentences cannot be said to lack or have meaning as a result of the absence or presence of L-conventions made especially with regard to them, and so cannot be said to have or lack conventional use in the sense in which words, or sometimes even phrases, are said to have or lack it.

The following consideration may perhaps make this clearer. *New* sentences, sentences never used before, may be constructed in L from old words and the usual rules of syntax, i.e. the already existing set of conventions. And it is obvious that the formulation of a new sentence, whether meaningful or not, *adds* nothing to the set of conventions already constituting L, in the way in which giving a new word a meaning or formulating a new rule of syntax would add to these conventions and thus of course change L by enriching it. If s could be said to have a conventional use in the sense in which w has a conventional use, then the construction of a new literally significant sentence s would entail adding a new convention to L, so that every time we formed a new literally meaningful sentence we would be changing L, which of course is simply not so.

I do not therefore see what Mr. Wisdom could possibly mean by (II), i.e., the question with regard to s, which lacks " conventional use," " Can s be given conventional use as a description ? "; and I do not for this reason understand what he means by saying that a philosophical statement is a verbal recommendation in response to (II). Until he tells us what meaning he intends " conventional use " to have as he uses it in connection with sentences, it is an open question whether (II) does mean anything. I think nevertheless that it is meaningless—in the way in which the example Mr. Wisdom gives of a nonsensical sentence, namely, " Can $2 + 2 = 5$? " is meaningless. Whatever Mr. Wisdom may mean by a sentence having or lacking conventional use he does I think wish to hold that the class (a') of sentences which he says have " conventional use " is included in (a), the class of literally meaningful sentences; and the class (β') of sentences which he says lack " conventional use " is included in the class

(β) of literally meaningless sentences.   Thus although it is unclear what he means by saying a sentence has or lacks " conventional use," or whether it has any meaning at all, it will be clear that in asking (II) (which will of course concern a sentence s lacking literal meaning) the philosopher *must also be asking*

(I'), " Can s be given literal meaning ? "

It will be obvious, then, that if (I') is meaningless (II) will also be meaningless ; and I now propose to consider (I').

Conventions regarding the meanings which words have are *arbitrary*, such that a given word w to which a certain meaning is attached by convention could have had some other meaning by convention or have lacked one altogether.   And of course conventions of syntax are also arbitrary ; other ones than those in use could have been adopted.   But *within* the arbitrary framework of the set of conventions constituting L, whether a sentence s, formed from words of L according to its rules of syntax, i.e. an L-sentence, has or lacks a literal meaning is clearly *not* arbitrary. Its meaning, or its lack of one, is determined by the L-conventions already adopted, so that *relative to* the L-set whether it has or lacks a meaning is not a matter of arbitrary determination. We might say that, in a certain sense of " follows from," the meaning which an L-sentence has *follows from* the L-conventions.   A similar view is put forward by Mr. Wittgenstein:[12] " In our notations there is indeed something arbitrary, but *this* is not arbitrary, namely that *if* we have determined anything arbitrarily then something else *must* be the case."   Thus for example, *within* the English language it is not arbitrary that s_1, " Mr. Wisdom is thinking of the number 2," has literal meaning ; and neither is it arbitrary that s_2, " The number 2 is thinking of Mr. Wisdom," is devoid of meaning.

This becomes clear if we consider what attaching meaning to a given sentence s entails.   At a minimum it entails (1) attaching meanings to its constituent words, and (2) attaching meaning to their combination, the combination of course being formed according to the rules of syntax.   We discover the meaning s has, or whether it lacks one, by an " inspection of its terms and reflexion on them and their mode of combination."[13]   In other

[12] *Tractatus Logico-Philosophicus*, 3.342.
[13] C. D. Broad, "Are There Synthetic A Priori Truths ? " *Proc. Arist. Soc. Supp. Vol.* XV, 1936, p. 108.   Prof. Broad does not use this phrase in the same sort of context as I do here.   I use it only for its aptness of expression.

words, whether a sentence constructed from words having conventionally assigned meanings itself has meaning is determined by the way its constituent words are combined. For example, the mode of combination of the words in s_1, " Mr. Wisdom is thinking of the number 2," determines s_1 to have meaning, whereas their mode of combination in s_2, " The number 2 is thinking of Mr. Wisdom," precludes s_2, from having meaning. Thus the class of conventions constituting the English language makes it impossible, and therefore not arbitrary, that s_2 should lack the meaning it does have, and also makes it impossible, and therefore not arbitrary, that s_2 should have a meaning. It is impossible both to attach the conventionally assigned meanings to the constituent words of s_2, to retain the usual rules of syntax, *and also* to attach meaning to the sentence as a whole. This holds for *all* the sentences of (β).

Hence it seems to me that in asking (I'), which is a question about a sentence to which it is impossible to attach a meaning, Mr. Wisdom is not asking a question to which an answer could be a " verbal recommendation." And it does not even seem to me to make sense to ask, " Can s be given literal meaning ? " when it is the case with regard to s that it is *impossible* to attach meaning to it. It seems to me to be like the question " Can $2 + 2 = 5$? " ; and I fail to see that Mr. Wisdom means anything at all by saying that *philosophical statements* are " verbal recommendations " made in response to (I').

SOME QUESTIONS ABOUT "KNOW" AND "THINK"

By A. M. MacIver

ALL the following sentences *appear* to be self-contradictory :

(A) (1) "p is true but I know that it is not."

(2) "p is true but I do not know that it is."

(3) "p is true but I think that is it not."

(4) "p is true but I have no opinion on the matter either way."

(5) "I know that p is true but I may be mistaken."

(6) "I think that p is true but I may be mistaken."

(7) "I know that p is true but I am aware that I may be mistaken."

(8) "I think that p is true but I am aware that I may be mistaken."

Now compare with these another set of sentences :

(B) (1) "p is true but the Editor of *Analysis* knows that it is not."

(2) "p is true but the Editor of *Analysis* does not know that it is."

(3) "p is true but the Editor of *Analysis* thinks that it is not."

(4) "p is true but the Editor of *Analysis* has no opinion on the matter either way."

(5) "The Editor of *Analysis* knows that p is true but he may be mistaken."

(6) "The Editor of *Analysis* thinks that p is true but he may be mistaken."

(7) "The Editor of *Analysis* knows that p is true but is aware that he may be mistaken."

(8) "The Editor of *Analysis* thinks that p is true but is aware that he may be mistaken."

Every sentence in set (B) corresponds to a sentence in set (A) ; but, of set (B), (2), (3), (4) and (6) are quite evidently self-consistent, while (1) and (5), though they are certainly self-contradictory if the word " know " is used in one sense, are self-consistent if it is used in another. If it is so used that " A knows p " always entails " p", then they are plainly self-contradictory

(for of course " he may be mistaken " is here equivalent to " p may not be true ") ; but, if " know " is used (as I think it some-times is, though not generally by philosophers) in such a way that " A knows p " is merely equivalent to " A is convinced of p " (in the sense in which we most often speak of " being convinced of " something in everyday usage), then these sentences also are self-consistent (for we can often say, " You may be convinced of that but all the same you are wrong".)

The situation is different with regard to (7), for this still seems to be a contradiction in whatever sense " know " is used, since (8) also seems to be a contradiction—for we are inclined to say, " If he is aware that he may be mistaken (that is, that p may be false), can it be said that he thinks that p is true ? Does he think more than that p *may* be true ? "—and, if (8) were a contradic-tion, so *a fortiori* would (7) be. (It makes no difference whether " to be aware " here means " to know " or " to think " ; the same conclusions follow.)   This raises a difficulty, for proposi-tions of this form are very often asserted ; when Oliver Cromwell made his famous request to the Scotch Calvinists (" I beseech you, in the bowels of Christ—believe it possible you may be mistaken ! "), are we to say that he was asking of them a logical impossibility ? But this is not the difficulty that I want to discuss here.   I have only added these sentences to my list, partly to point this difficulty out in the hope that somebody else may perhaps be able to deal with it, and partly to make quite clear what I am discussing by indicating what I am *not* discussing. (For I think that these propositions have sometimes been con-fused with (5) and (6) in the list.)

The difficulty that I want to discuss is this.   Each sentence in list (A) only differs from the corresponding sentence in list (B) in containing the pronoun " I " in place of the substantival phrase " the editor of *Analysis*."   But this difference should be of purely *grammatical*, not *logical*, significance.

Sentences containing pronouns (" pronominal sentences " as I shall sometimes call them) have systematic ambiguity, in that such a sentence may express different propositions according to the speaker who utters it or the circumstances in which it is uttered ; but what logic is concerned with is the propositions, not the sentences.   To take Ramsey's example, there is no con-tradiction between the *sentences* " I went to Grantchester yester-

day " and " I didn't go to Grantchester yesterday "—or even between the propositions which they express, so long as they are uttered by different people, or by the same person on different days ; but there *is* contradiction between the propositions which they express if they are uttered by the *same* person on the *same* day.   But, if we are in any doubt as to whether the propositions expressed by such sentences (as spoken by particular people on particular occasions) are contradictory or not (or have or have not other logical relations), we can settle the matter by eliminating the ambiguity, by translating the sentences into forms in which the pronouns are replaced by nouns.   For example, if the sentence, " I went to Grantchester yesterday " is uttered by Mr. Braithwaite[1] on February 15th, 1938, and the sentence, " I didn't go to Grantchester yesterday " is uttered by Dr. Ewing[1] also on February 15th, 1938, we can see that the propositions they express are not contradictory by translating them into the forms, " Mr. Braithwaite went to Grantchester on February 14th, 1938 " and "Dr. Ewing didn't go to Grantchester on February 14th, 1938," which are *obviously* not contradictory ; and again, if Mr. Braithwaite on February 15th says, " I went to Grantchester yesterday " and on February 16th says, " I didn't go to Grantchester yesterday," the propositions expressed are not contradictory, as becomes obvious when the sentences appear in translation as " Mr. Braithwaite went to Grantchester on February 14th " and " Mr. Braithwaite didn't go to Grantchester on February 15th " ; but, if Mr. Braithwaite says on the same day both " I went to Grantchester yesterday " and " I didn't go to Grantchester yesterday," then the propositions expressed *are* contradictory, for the sentences appear in translation as " Mr. Braithwaite went to Grantchester on February 14th " and " Mr. Braithwaite didn't go to Grantchester on February 14th," in which the contradiction is obvious.   (In the same way there is no contradiction between " I went to Grantchester yesterday," and " You didn't go to Grantchester yesterday " if they are both uttered, even on the same day, by Mr. Braithwaite, say, to Dr. Ewing, but there *is* contradiction if the first is addressed by Mr. Braithwaite to Dr. Ewing and the second by Dr. Ewing to Mr. Braithwaite, and this appears when the pronouns are eliminated in translation ; there is no contradiction between " Mr. Braithwaite went to

[1] I hope that both the gentlemen concerned will forgive my taking their names in vain.

Grantchester " and " Dr. Ewing didn't go to Grantchester," but there *is* between " Mr. Braithwaite went to Grantchester " and " *Mr. Braithwaite* didn't go to Grantchester.") But this assumes that a sentence containing pronouns, as used by a particular speaker on a particular occasion, (e.g. " I went to Grantchester yesterday " as uttered by Mr. Braithwaite on February 15th) and a sentence not containing pronouns (e.g. " Mr. Braithwaite went to Grantchester on February 14th ") express the same proposition, and that logical relations (such as contradiction) hold between the *propositions*, not between the *sentences*. When the pronouns are eliminated by translation, it is shown what logical relations hold between the propositions expressed by the original sentences containing the pronouns, because, though ambiguity is removed, the meaning of the pronominal sentence as used on a particular occasion is not altered.

But now consider any sentence in list (B) above—other than (1) and (5) when the word " know " is used in certain senses, and perhaps (7) and (8) ; the propositions which they express are quite evidently self-consistent. And then consider the corresponding sentences in list (A) ; these are apparently self-contradictory. But, if we suppose the latter uttered by the Editor of *Analysis* himself—a perfectly conceivable supposition—then each of these sentences expresses the same proposition as the corresponding sentence in list (B). And how can the proposition expressed by one form of words be self-contradictory, if the same proposition, when expressed by another form of words, is clearly self-consistent ?

The answer that I want to suggest is that none of the sentences in list (A)—always with the exception of (1) and (5) in certain senses of the word " know," and perhaps of (7) and (8)—is in fact a contradiction at all. The appearance of contradiction is due to the confusion of contradiction with something else.

Let us take a concrete example, such as " Mussolini is having a bath but I do not know whether he is or not." This seems to be self-contradictory. (And it makes no difference here if we substitute " think " for " know " and say " Mussolini is having a bath but I neither think that he is nor think that he is not "— that is, " I have no opinion on the matter " ; the appearance of contradiction remains ; it would be said that " Mussolini is having a bath " *implies* both " I know that he is " and, *a fortiori*,

" I think that he is.")   And let us suppose the speaker to be the
Editor of *Analysis* ; *he* then will seem to be contradicting him-
self.   But, if we only translate the sentence so as to eliminate the
pronoun, we find that all that is being asserted is " Mussolini is
having a bath but the Editor of *Analysis* does not know that he
is " —which would not, I think, seem to be self-contradictory to
anyone ; in fact, unless either Mussolini *never* has a bath or the
Editor of *Analysis* possesses the powers of a clairvoyant, it has
probably on many occasions been actually *true*.[2]   How then can
we maintain that " Mussolini is having a bath but *I* do not know
that he is," as uttered by the Editor of *Analysis*, is self-contradic-
tory ?

The only way out would seem to be to distinguish the *proposi-
tion* and the *assertion* of it, and say that, though this proposition is
perfectly self-consistent, and can be asserted by anyone *except*
the Editor of *Analysis*, yet the Editor *himself* cannot assert it.
But then what do we mean here by " cannot assert ? " Not that
he cannot make the noises, for clearly he *could*.   *I* can perfectly
well say (make the noises) " Mussolini is having a bath but I do
not know whether he is or not," and the Editor of *Analysis* does
not, so far as I know, suffer from any form of aphasia which
prevents him from doing the same thing (nor would it make any
difference to the argument if he did).

Shall we then say that he cannot utter the noises *meaning any-
thing by them ?* But now what do we mean by " meaning anything
by them ? " The words " Mussolini is having a bath," as spoken
at any particular time, have a perfectly definite meaning according
to the rules of the English language (barring any difficulties that
may be raised about the proper name, which are not relevant
here)—they express a perfectly definite proposition, which may

[2] Lest I should be accused of attacking a position nobody holds, I may point out that
Mr. Duncan-Jones (in " Lewy's Remarks on Analysis," *Analysis* 5.1, p. 10) treats the
similar case of " I think p but not-p " (which is only the obverted form of my (A) (3)) as
a contradiction.   It is true that he calls it a " quite different *form* of contradiction " (my
italics) from " the already obvious contradiction of asserting not-p along with an assertion
which entails p," but he seems to have no doubt that it is equally a form of *contradiction*.   I
seem to detect the same assumption in the doctrine which Miss MacDonald, in *Arist. Soc.
Supp. Vol.* XVI (Bristol conference 1937), p. 30, attributes to Professor Moore, but I
admit that her statement is capable of several interpretations.

[3] This sentence is still pronominal as involving tense (for *tense*, unless a date is definitely
expressed, must be regarded as a " pronoun "), which is why we can speak of it as being
" true on some occasions though not on others," meaning that, as uttered on some occa-
sions, it expresses true propositions, though, as uttered on other occasions, it expresses false
propositions.

be true—and so do the words " I do not know whether Musso-
lini is having a bath or not," as spoken by any particular *person* at
any particular time ; and, as the two propositions are not incon-
sistent (for it is quite conceivable that Mussolini should take a
bath without anybody except Mussolini himself knowing that he
was doing so, and logically possible that he should do so in a fit
of complete absent-mindedness, so that not even *he* knew it), the
words " Mussolini is having a bath but I do not know whether
he is or not," as spoken by any particular person at any particular
time, also have a quite definite meaning according to the rules of
the English language—express a definite conjunctive proposition,
which again may perfectly well be true. Nor is anyone who tries
to utter these words immediately smitten with a sudden *amnesia*
for the meanings of English words and constructions which he
knew before. In any ordinary sense of " knowing what words
mean," I can perfectly well utter these words *knowing exactly what
they mean*, and so can anyone else (such as the Editor of *Analysis*).

Nor can we say that, though anyone could utter these words, they
are *meaningless to him* because no experience of *his* could verify
them. We are told—it is a favourite example with the Verifica-
tionists—that the statement " There are mountains 10,000 feet
high on the other side of the moon " is significant to us now,
although we cannot at present tell whether it is true or not, be-
cause we can describe an experiment which would settle the
matter (such as going to the other side of the moon and measur-
ing) though we are not at present in a position to perform the
experiment ; but the very same experimental results which
would verify *this* statement would also verify the statement,
" There are mountains 10,000 feet high on the other side of the
moon though we do not at present know whether there are or
not." To return to our former example, suppose the Editor of
Analysis at midday on February 15th, 1938 (out of the blue,
without rhyme or reason) to utter the words, " Mussolini is now
having a bath though I do not know whether he is or not " ;
although he has no authority for his assertion (any more than,
in the other example, we have any authority for asserting, " There
are mountains 10,000 feet high on the other side of the moon "),
still he is asserting something which is *significant to him*, even by
the verification test, for by the same time on February 16th he
might well be in possession of evidence, of the kind (whatever it
may be) which at present justifies us in making statements about

the past, which would entitle him to say then " Amazingly
enough, what I said yesterday has turned out to have been true,;
exactly twenty-four hours ago Mussolini *was* having a bath
though I didn't then know whether he was or not." And there
is no reason why he should not, at the time when he *made* the
statement, have *described* the way in which it might be verified,
though of course he would have to wait before he could *perform*
the verification ; but (as Schlick said[4]) " *waiting* is a perfectly
legitimate method of verification."

So we are forced to the conclusion that sentences of the form
" *p* but I do not know *p* " are not in fact *contradictory* at all. And
the same applies to the other sentence-forms that I have men-
tioned ; they are none of them contradictory. Why then have
people ever thought that they *were* ? The reason, I think, lies
in the tendency of philosophers (especially present-day " analy-
tical " philosophers) to consider Language apart from its *use*.
The result is that (as applied to forms of words) " to have no
use " tends to be equated with " to make no sense." But these
are not in fact the same thing. Such a form of words as " Mus-
solini is having a bath but I do not know whether he is or not "
makes sense—as used on any particular occasion by any particular
person it expresses a proposition which is self-consistent, may be
true, and may later be *found* to be true ; the only objection to it—
and it is a serious one—is that nevertheless it *has no use*.

The whole purpose of making a statement (at least if language
is being used in the " scientific " way, which is the only use that
is here in question) is " to communicate information "—that is,
that the hearer should be inclined by the speaker's authority to
decide in favour of what is stated being true. But this will only
follow if the hearer supposes that the speaker *knows*, or at the very
least *thinks*, that what he says is true. For this reason it comes to
the same thing in practice to say " *p* " and to say " I know that
p " : not that the two statements have the same meaning—for
the first might be true and the second false—but what a hearer
will be led to believe by them, if he is led to believe anything, will
be the same in both cases. (It is true that, in some cases, " I
know that *p* " will be more persuasive than " *p* ", especially if
emphasis is laid on the word " know " ; for example, if I say
" Mussolini is having a bath," a hearer may remain sceptical
until I add " I *know* that he is " ; but this is irrelevant, because I

[4] *Gesammelte Aufsätze* 1926–1936, p. 345.

might produce exactly the same effect by repeating emphatically
" He *is* " : all that I am trying to do here is to convince him that
I am in earnest—which I might even do simply by my *expression*
or *tone of voice*.)　If, however, I say " *p* but I don't know *p* "
(" Mussolini is having a bath but I don't know whether he is or
not ")—and still more, of course, if I say " *p* but I don't *think p* "
(" Mussolini is having a bath but I have no opinion on the ques-
tion whether he is or not ") or " *p* but I think not—*p* " (" Mus-
solini is having a bath but I think he isn't ")—the second half of
what I say makes the *saying* of the first half *pointless*.　To append
to any statement "—but I don't know whether this is so or not "
is equivalent in *effect* to prefixing to it, " Don't attend to what I
am going to say next because it is not meant seriously."　It is
expressly to disclaim the authority which must be assumed by the
hearer if he is to consider the remark worth attending to, and
therefore if it is to be worth making.

This, I think, is what people have had in mind when they have
regarded sentences of such forms as " *p* but I don't know *p* " as
contradictory.　But it is one thing to say that a statement is *not
worth making*—another to say that it is *self-contradictory* or *mean-
ingless*.　(Of course there is contradiction involved in the situa-
tion of *making* such an assertion, but it is not contradiction *in
what is asserted* ; it is contradiction between part of what is
asserted and what must be assumed by the hearer if the other part
is to be worth attending to.)　It may be *more important* to know
whether a sentence is worth uttering than to know whether it is
significant ; but that is another question.　It is certainly a very
important fact about sentences of these forms that they are not
only not worth uttering on certain occasions (as " It is raining "
is not worth saying to someone in the open air in the middle of a
downpour) but, by their very nature, *never* worth uttering (except
as examples in a philosophical discussion).　But, even so, no
harm is done—and a little clarity is gained—by recognizing that
they are *not contradictions*.　(Or, if the word " contradiction " is
so used as to cover both kinds of case—which seems to me any-
how a bad practice—at least it should be made clear that it is
being used in two quite different senses.)

University of Leeds,
　　February 1938.

A NOTE ON EMPIRICAL PROPOSITIONS

By CASIMIR LEWY

MR. Bertrand Russell in his recent Presidential Address to the Aristotelian Society makes a number of remarks upon which I propose to comment briefly.

Mr. Russell starts by saying that the problem he is concerned with is " that of our reasons for *believing* [1] propositions not belonging to logic or mathematics, i.e. those propositions which are commonly called " empirical." (p. 1.)

He goes on to say " I call a proposition ' analytic ' when it follows from the laws of logic ; ' contradictory ' when its contradictory follows from the laws of logic ; and in any other case ' synthetic '. A synthetic proposition which is believed or thought probable I call ' empirical '." It is not clear what Mr. Russell means by this last statement. Does he mean a synthetic proposition which is *actually* believed or thought probable by somebody, or a synthetic proposition which *can* be believed or thought probable (by somebody)?

Assuming that he means the second alternative [2] it is not clear whether he wishes to identify empirical propositions in the sense defined with those propositions which are, according to him, " commonly called ' empirical '."

That is to say it does not seem to me clear whether Mr. Russell thinks that if *p* (any given proposition) does not belong to logic or mathematics it follows that *p* is an empirical proposition in the sense defined by him.

If he does think so, as it seems to me he does, he is dividing all propositions into two classes :

(1) Propositions belonging to logic or mathematics : i.e. analytic propositions ; and those propositions which assert the denial of analytic propositions, i.e. contradictions. (I presume that Mr. Russell is using the expression " to follow from the

[1] The italics are mine.

[2] My grounds for this assumption are negative : it seems to me incredible that Mr. Russell should mean the first alternative. I can't develop it any further, except to say that one of the curious consequences of his meaning propositions which are *actually* believed would be that if *p* were an empirical proposition it would follow that not-*p* was not an empirical proposition and if not-*p* were empirical, *p* would be not empirical.

laws of logic " in a sense in which mathematical propositions can be said to " follow from the laws of logic."   Or in any case, he is prepared, I think, to call mathematical propositions " analytic " in " virtue of their own structure."[3]

(2) Propositions which can be believed or thought probable, i.e. empirical propositions.

I think that this is plainly wrong.

It says first that all empirical propositions (i.e. propositions not belonging to logic or mathematics) can only be believed or thought probable, and secondly that we can rightly say with regard to any empirical proposition that it is (or can be) believed or thought probable.

I wish to deny both.

It seems to me quite plain that certain empirical propositions can be (and often are) not only believed but *known*.

Consequently it seems to me that Mr. Russell formulates what he takes to be the main problem of his paper quite wrongly.

He is constantly talking of *believing* certain propositions[4] and asking for the *justification* of our beliefs ; whereas the propositions in question are not only believed but known by us.

If he realized this he would not, I think, be so much tempted to ask for or to advance *reasons* and give logical arguments in favour of them.

Secondly I think that there are certain propositions not belonging to logic or mathematics with regard to which we cannot say that these are or can be believed or thought probable at all.

I mean propositions like "I see red " as used when applied to an after-image, say, or " I am in pain."

And when I say " we cannot say this " I mean it does not make sense to say " It's probable that I see red " or " I believe that I am in pain."[5]

The consideration whether all empirical propositions can only be believed or thought probable brings me to Mr. Russell's remarks on the physical world which I propose only briefly to consider.

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[3] Cf. Carnap, *Logical Syntax of Language*, p. 325–328.
[4] " Each of us is firmly persuaded of a number of matters of fact, which we *believe* on the basis of particular experience, and not as the result of an argument.   It is true that philosophic education narrows the scope of such *beliefs* but it does not destroy them." (p. 5.)
[5] Cf. J. Wisdom, " Philosophical Perplexity," *Proc. Arist. Soc.* 1936–1937.

He says[6] " It is generally agreed that the public physical world is an inference and that basic propositions are not directly concerned with it."

This statement puzzles me very much. I think there are a number of things which ought to be pointed out at this point and which it is rather difficult to keep separate.

Mr. Russell has defined a basic proposition as " one which is completely believed in virtue of a single experience (p. 2) and which we cannot be led to doubt either by reasoning or by subsequent experience " (p. 4.)

The proposition that all Frenchmen are bad tempered may be[7] an example satisfying the first condition and the proposition that there are stones may be an example satisfying both conditions.[8]

Now, after giving these examples, what is meant by saying that " basic propositions are not directly concerned with the public physical world ? "

For I should have thought that a stone is as good a public physical object as anything can be, and hence if one asserted, " There is at least one stone " and was using it in the ordinary way such an assertion would be concerned with the public physical world.

There seems to me to be an inconsistency in Mr. Russell's treatment of basic propositions. First he gives examples of basic propositions which plainly are " concerned with the public physical world "[9] then asserts that it is commonly agreed (?) that the public physical world is an inference and no basic propositions are directly[10] concerned with it, and immediately after saying this he goes on to say that a basic proposition may be *physically* inconsistent with some other, i.e. if both are true some well-attested scientific law must be false.

Now, how on earth can two basic propositions if they are not concerned with the physical world *entail* that a certain law of physics is false ? Are the laws of physics not concerned with the

[6] p. 6.   [7] Under very special conditions. See p. 2.
[8] " For Dr. Johnson the existence of the stone that he kicked remained a basic proposition." (p. 4.)
[9] This phrase is far from being completely clear ; I take it to be used in such a way that if a sentence is " concerned " (e.g. asserts or denies the existence or states a property) with a *physical object* it follows that it is " concerned with the physical world."
E.g., I take the sentence " there is a desk in my room " as it is ordinarily used to be " concerned " with the public physical world.
[10] Or does the solution of this lie in the word " directly ? "

physical world ? Mr. Russell may say that they are not "directly" concerned with the physical world.

To this I should reply (1) that such a view leaves the notion of scientific laws completely obscure, and (2) it is plain that in the sense in which a certain sort of basic propositions may be said not to be directly concerned with the public physical world,[11] physical laws are directly concerned with it.

In any case how can any basic proposition *entail* the falsity of a physical *law*.[12]

This queer position seems to me to be somehow connected with Mr. Russell's view that we have to *assume* the publicity and persistence of physical objects.

" When you say ' there's a fox ', you consider your statement confirmed if you continue to see it, and others also see it. But this is only a confirmation if you assume the persistence and publicity of physical objects." (p. 18.)

I think I see what Mr. Russell is trying to convey in this example : I may say " I see a fox " and use it as a description of my sensations in which case no future evidence[13] that there wasn't any fox at the time I said I saw one has any relevance to the truth of my statement (except that I may find that I was using a wrong word or words).

On the other hand I may use " I see a fox," as I commonly do, in a way in which it entails there is a fox. In this case the evidence of other people, etc. is relevant to the truth of my statement.

In spite of this, however, Mr. Russell's talk about *assuming* the publicity and persistence of physical objects seems to me to be very misleading indeed.

It suggests that there is a special and distinct process which consists in our making the assumption that physical objects are public and persistent.

But to say this is to misuse the word " assumption." We cannot, as Mr. Russell's words seem to imply, first say that something is a physical object, and then assume that it is public and persistent. For " *x* is a physical object and *x* is public and persistent " is a sheer tautology.

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[11] E.g., " I see a green circle in my visual field " or " I see a red after-image."
[12] " If both were true, some well attested scientific law *must* be false."
[13] Nor any present evidence.

Similarly " x is a physical object and x is not public and persistent " is a contradiction.

There is only one other remark I should like to make in this paper.

" We say ' A is going to marry B.'   ' How do you know ? '   ' Because C told me.'   But it is *logically possible* for C to utter certain sounds without A and B proceeding to marry each other : *the argument therefore is a bad one.*"[14]

I cannot agree to this ; and it seems to me that the above argument is a good one whereas Mr. Russell's argument is a bad one.

In ordinary life if C says " A is going to marry B," and we regard C as a reliable person who has never deceived us in the past we *have a good reason* for saying that A is going to marry B ; although in fact A may be not going to marry B.

Mr. Russell seems to demand in this case an argument which would justify our statement in the sense in which we can justify p only by giving reasons which *logically entail p*, i.e. if we represent our statement (A is going to marry B) by p and the reasons which we can advance for p by q_1, q_2, q_3 we can say that Mr. Russell demands that our argument should be such that it would be contradictory to assert q_1, q_2, q_3 and to deny p.

(This accounts, I think, for his saying that it is *logically possible* for C to utter certain words with A and B proceeding to marry each other ; meaning by this, I suppose, that there is no contradiction in asserting " C told me . . ." and denying " A and B are proceeding . . . . . .")

Seeing that in this example this is not the case he argues that *therefore* the whole argument is a bad one.

I take Mr. Russell's argument to be an instance of a certain kind of " senseless lament."[15]   The genus to which Mr. Russell's lament belongs is :

" Empirical premises do not really justify their conclusions."

Cambridge, November 1937.

[14] (p. 4).   The italics are mine.
[15] This phrase is due to Mr. Wisdom.

THE EMPIRICAL AND THE GRAMMATICAL DOUBT

By B. von Juhos

WE doubt not only the truth of statements, but also the correctness of a calculation. We are easily inclined to believe that, while we can in principle doubt the truth of empirical statements, it is meaningless to doubt the truth of analytical statements; in the latter case we can at best doubt the correctness of the choice and the use of signs. It is as a result of this kind of doubt, for instance, that we examine calculations and analytical deductions, to make sure that no mistake has been made.

I have already expressed the opinion in a number of articles,[1] that there are also empirical statements which cannot significantly be doubted, since it is logically impossible to designate them as errors. Such statements are made when I say, " I am in pain " or " I see blue." The answer which I received was that such K-statements[2] may also be doubted, for it is possible that I am making a mistake in the use of the word, and that, for example, I say " pain " instead of " pleasure " or " blue " instead of " red." If I want to ascertain whether I am using the words that occur in my statements, or even the statements themselves, in the right way, I need to re-examine the situation, and the result of this examination is naturally always " doubtful ", that is to say, it may prove that I have made a mistake in the employment of the words or statements. Moreover it is asserted that this doubt about the correct employment of the expressions is of the same kind as the doubt about the truth of an empirical statement. This assertion is usually substantiated by the following consideration. If I make the statement, for instance, "it is raining outside", somebody may doubt whether it is really raining ; on the other hand he may also doubt whether I have used the statement and the words in the right way ; it is possible that I wanted to say " somebody is standing outside." In both cases the justification of the doubt can be tested. And it can be shown that in both cases the test takes us back to the observation of empirical facts. In the first case the person who doubts must look out of the window, or go

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[1] Cf. the author's essays in *Analysis* 2, 6 and 3, 5 and in *Mind* 46, 183. My articles in *Revue de Synthèse* 12, 2 and *Erkenntnis* 6, 1 also treat these questions partially.

[2] Sentences of the kind mentioned above I called in *Mind* 46, 183 " K-statements " (" Konstatierungen.")

outside, and see whether it is really raining. In the second case he must test, by observing my behaviour, whether I had a mastery of the language in which I expressed myself, or whether I for one reason or another made a mistake in the use of language. Accordingly in this case also the decision depends upon the observation of empirical facts, and one concludes that the doubt about the truth of an empirical statement, and the doubt about the correct use of the expressions which form a statement, are of the same kind. The doubt of the first kind we will call the " *empirical*," that of the latter kind the " *grammatical* " doubt.

As opposed to this opinion I believe that the empirical and the grammatical doubt are logically of different character, and that it is therefore inappropriate to speak of a doubt of the same kind in the two cases.

The empirical doubt is possible in cases in which a statement may be erroneous. The grammatical doubt, on the other hand, is possible in all cases in which something is expressed by signs—and thus in the case of mathematical, analytical statements among others. If I write down or speak such a statement I can of course make mistakes in writing or speaking. Despite this we believe that analytical statements cannot be doubted : in my opinion we mean by this that we cannot speak significantly of an *empirical* doubt in regard to such statements. But if we regard the grammatical and the empirical doubt as identical, in accordance with the conception explained above, the mode of expression according to which analytical statements are just as doubtful as empirical statements necessarily results. In taking this view we already come close to Mill's empiricism, which in addition regards the statements of mathematics as empirical ones.

This conception is based on a fundamental misunderstanding which is also found in the behavioristic epistemology of to-day. The empirical doubt is directed towards the fact expressed in the doubted statement, whereas the grammatical doubt pays no attention to this fact, but is concerned with the behaviour, which the speaker or writer displays in the choice and use of expressions. If for instance a person makes the statement " it is raining outside," we can doubt this statement grammatically even after having made sure that it is really raining outside. The person concerned perhaps wanted to say " somebody is standing outside." There is a fundamental difference between error and a

mistake in speaking, and we can take account of this difference by introducing a mode of speech which discriminates strictly between " empirical " and " grammatical " doubt.

We are now able to answer the question, in what sense K-statements may be doubted. If A makes the statement, " I am in pain," he can at most doubt this statement grammatically. In this statement he has either consciously told the truth or consciously told a lie, and a doubt whether the asserted fact exists or not, is therefore logically excluded for A. But if B hears A's statement, he can, according to the usual mode of expression, doubt whether A actually is in pain, i.e. whether the fact asserted by A exists or not. And that apparently would be an *empirical* doubt. Thus it seems impossible to avoid the puzzling position that a K-statement cannot be doubted empirically by the person making it, whereas it can be by others. (In the grammatical sense of course both A and B can doubt a K-statement).

The following point must however be kept in mind. B also cannot doubt whether A made a mistake in making the statement " I am in pain " ; a K-statement of A cannot have the character of an error even for B. B can only doubt whether A has not told a lie in making a K-statement, i.e., whether he has not purposely told an untruth. But a lie is a conscious violation of the rules according to which a statement can be used, hence in a general sense a violation of the grammar of the statement. The rule which applies to the statement " I am in pain " is " make the statement, if you are in pain." B can thus only doubt whether, in making a K-statement, A has followed the rules for the use of this statement, or whether he has intentionally violated them. Hence we see that the rules of usage may be violated without the result being a meaningless series of words. But this is a *grammatical* doubt of the same kind as, for instance, the doubt whether A has by any chance made a mistake through a slip of the tongue. In the latter case the violation of the grammatical rules of usage does not occur intentionally. We see, therefore, that the doubt as to whether A has told a lie is directed towards the linguistic behaviour of A ; it is a *grammatical* doubt, and thus, in the case of a K-statement by A, for B also it is only possible to doubt in the grammatical sense. The difficulties of the position mentioned above thus appear to be removed.

We wish to mention in passing the difference between lie and

error. We have seen that the lie is a conscious violation of the rules of usage, i.e. of the grammar of a statement. It would be wrong to conclude that error is an unintentional violation of the grammatical rules concerned. The unintentional violation of the grammar of a statement is a slip, such as, for example, a slip of the tongue, a mistake in writing, calculating etc. It is only when a statement can be transformed into statements making a *prediction*, or when statements of this kind can be deduced from it, that the possibility of an *error* exists. Empirical statements must therefore possess a certain logical structure, if it is to be possible for them to prove to be errors. K-statements, however, *never* possess this hypothetical structure, as I have shown in several papers,[3] and that is why they can never be characterized as erroneous. But of course K-statements as well as others can be used, intentionally or accidentally, in the wrong way, and if the violation of the rules of usage is done consciously we are dealing with a lie. Only a supposition, a prediction can be erroneous. Owing to their structure it is always left open in such statements, to what degree they will prove to be true, and room is thus allowed for the empirical doubt. The truth or falsity of a K-statement, on the other hand, is decided as soon as the statement is made ; it can only be doubted, if at all, in the grammatical sense.

Vienna, January 1938.

[3] See the essays mentioned in footnote 1.

WHAT ARE THE LAWS OF LOGIC?

By H. WALLIS CHAPMAN

IT is a common view among logical positivists that the laws of
logic are " conventions " ; in Mr. Ayer's words : " the prin-
ciples of logic and mathematics are true universally simply
because we never allow them to be anything else, and the reason
for this is that we cannot abandon them without contradicting
ourselves, without sinning against the rules which govern the
use of language, and so making our utterances self-stultifying "
(*Language, Truth and Logic* p. 99).   On this Professor Stebbing
comments, " the notion of a convention which in no sense in-
volves any element of deliberate adoption does not seem to me to
offer any help in explaining what we mean by ' cannot ' when we
say for instance ' p and not-p cannot both be true '." (*Mind*,
July 1936, p. 36).   I hope in this paper to elaborate this criticism
and render the difficulties involved clearer.

In the first place it does not appear that the " laws of logic "
are all of the same kind ; some seem not to reach even to the level
of conventions, being mere mechanical devices imposed on us by
the material conditions under which our symbols are made.
For instance, if we could devise a notation in which p and q
were treated symmetrically, $p \vee q = q \vee p$ would be unmeaning,
as both sides would be the same ; and $p \vee p$ could not be expressed
at all.   We can, in fact, do this to some extent by writing both
letters in the same place, but this is impossible in speaking and
inconvenient in printing, while even in writing an increase in the
number of alternatives would speedily produce an illegible
mess.

But all laws of logic are not of this sort ; we cannot, for
example, imagine a notation which would render the syllogism
inexpressible in this way.   We must therefore examine the
notation of convention further.

The clearest examples of conventions which do not involve
any element of deliberate adoption occur in ordinary language.
How " canis " came in Latin to mean what we call " dog " is
not easy to say, but the processes by which it became " chien "
in French and " cane " in Italian are like those going on around
us every day which certainly contain no such element.

Also these conventions are sometimes true " simply because

we do not allow them to be anything else". The process may mark a real advance in knowledge, as in the changes in meaning of, the word " acid " set forth by Mill (*Logic*, Ch. VIII, §4) or it may be a mere sophism, " if a hippopotamus were ever discovered in an ape's brain it would not be one, you know, but something else." But there is a limit to this process, if it is to have any significance. It may have been necessary to drop some of the features supposed to characterise acids in order to make general statements about acids which were of use in chemistry, but unless experience had shown that some such general statements were possible the word " acid " could have had no place in the conventions of language. We find, therefore that the conventions of language are based on experience, which Mr. Ayer will not allow the laws of logic to be.

If we now turn to Mr. Ayer's example of a law of logic satisfied because we do not allow it to be anything else we find a similar difficulty. He says that we can reconcile the denial of " my friend has stopped writing to me " with that of " my friend has not stopped writing to me " and with the law of excluded middle by analysing " my friend has stopped writing to me " into " my friend used to write to me and no longer does so." But such an analysis would not merely be made *ad hoc*, it is just the dictionary explanation of the word " stopped", the explanation that anyone would give apart from the logical puzzle, and if this were not so the explanation would not be satisfactory. In other words we find that the explanation of the logical paradox is based on experience ; the situation is analogous to that exemplified by the usage of words, and we are landed in Mill's theory, which Mr. Ayer rejects. At first sight there seems to be a difference in the two cases, the experience in the case of acids being of chemical reactions, whereas that in the other case is of the usage of words ; but this appearance is illusory. In the one case our experience of chemistry shews that it is convenient to have a word to denote a certain set of chemical reactions, in the other our experience of human behaviour that it is convenient to have a single word to denote first doing a thing and then not doing it. It appears therefore that in each case our convention is based on experience.

Again, does not " conformity with a convention " involve prior logical laws ? The process by which we recognize the

collection of symbols "$p = -p$" whenever it occurs may not be logical, but what about the transition from the general "you must always reject '$p = -p$'?" to "you must reject this particular '$p = -p$'"? This is an instance of the "law of logic" which Johnson has called "the applicative principle", and without this law "conformity with a convention" would seem to be impossible. The transition from "you must reject $p = -p$" to "you must reject $q = -q$" takes us a step further, for it involves "you must reject any form in which a symbol denoting a proposition is repeated on each side of the combination $= -$, and $q = -q$ is such a form, hence you must reject $q = -q$", which is an instance of Johnson's "implicative principle".

We see therefore that there are at least two laws of logic which cannot be conventions, being prior and necessary thereto. These laws are peculiar in another way; they are equivalent to the principle which Russell says cannot be formalised, namely that "a true premiss in an implication can be dropped and the consequent asserted" (*Principles of Mathematics*). It may be that Mr. Ayer intended to confine himself to such laws of logic as can be formally stated, and that the sentence quoted at the beginning of this paper was meant to express this limitation. We will therefore examine the use of symbols such as $\supset$, $-$, $=$, in expressing the laws of logic.

Of course there is something conventional in the use of any set of symbols; it is merely a matter of convention whether we use $\supset$ or any other sign for implication. But if we find that a symbol having the properties usually assigned to $\supset$ is necessary then we have an element which is not conventional.

Now it is not difficult to assign a set of properties to the ordinary logical symbols which are not inconsistent on inspection, i.e. which are not condemned by the immediate application of the applicative or implicative principles, but, when their consequences are developed, result in inconsistencies, and such a set of properties must be rejected; as Miss Fremlin (to whom I am indebted for some very helpful criticism) puts it "The symbols define themselves according to their use" (*Analysis*, Jan. 1938). The question now arises "What guarantee have we that our ordinary logic is not such a system?": certainly we have not developed all its possible consequences; if our assurance is

founded on experience Mill's theory is correct ; it appears that Mr. Ayer has failed to explain it in terms of " convention ".

It appears, then, that the laws of logic are of at least three kinds :

(*a*) Mechanical devices.

(*b*) The applicative and implicative principles, which are constitutive of conventions and of much else.

(*c*) A third class for which the name of " Laws relating to the manipulation of symbols " suggests itself, but I think it very likely that such a title would be found inappropriate.

It may be that the third class should be further divided, but I will not attempt to deal with this question, or with the distribution of the ordinary laws of logic among the classes, here.

POSTPONED MEETING OF ANALYSIS SOCIETY

THE week-end meeting of the Analysis Society, announced in the January number of *Analysis* as arranged for 30 April and 1 May 1938, has unfortunately had to be postponed, as a result of difficulties in getting papers for discussion prepared in time. Further arrangements will be announced as soon as possible. It is hoped that members of the Analysis Society attending the Mind Association and Aristotelian Society Joint Session at Oxford will find opportunities of discussing this matter.

Apologies are offered for any inconvenience or disappointment which this postponement may have caused.

ERRATUM

Analysis Vol. 5, No. 2, A. M. MacIver, " Last words to Miss MacDonald," p. 28, line 17 from bottom : for " lip-reading " read " lip-rounding."

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